

REMARKS

STATUS OF CLAIMS

Claims 1-38 and 40-54 have been pending in the application.

Claims 1-18, 26-33, 40-46, and 59-54 are allowed.

The Examiner maintains the rejection of claims 19-25, 34-38 and 47-49 under 35 USC 102(e) as being anticipated by Kang (US Patent No. 6,400,347).

Claims 19, 22, 23, 34, 37, 38, 47, 48 and 49 are amended.

Claims 20, 21, 35 and 36 are cancelled without disclaimer or prejudice.

Thus, claims 1-19, 22-34, 37-38 and 40-54 remain pending for reconsideration, which is respectfully requested.

No new matter has been added in this Amendment. The foregoing rejection is hereby traversed.

CLAIM REJECTIONS – 35 U.S.C. § 102

Claims 19-25, 34-38 and 47-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Kang (U.S. Patent No. 6,400,347).

Page 2, item 2 of the Office Action, is the Examiner's more detailed rationale rejecting independent claims 19, 34 and 47, in which the Examiner appears to be asserting that "gray level of ... color video signals" affects brightness of the color video signals, and in turn affecting the number of emissions. See, for example, the present Application by the comparison of FIGS. 7 to 9 and FIGS. 16, 19, and 20, and page 31, lines 29-36, of the present Application. Also page 31, lines 2-13, of the present Application discloses that in the prior art white balance is adjusted by controlling gray levels once prior to display shipment from the factory. Accordingly, the Examiner relies on Kang column 7, line 63 to column 8, line 22 (see also column 6, lines 20-27), to assert that Kang discloses "brightness of each of R, G, and B ... are measured ... when controlling the white balance in consideration of the characteristic of the panel and thus the number of sustain pulses of R:G:B ratio required in good white balance is calculated," which allegedly is similar to the present claimed invention's "output gray levels ... by said primary color video signals are adjusted in accordance with input gray levels ... by said

primary color video signals, thereby correcting white balance which varies with the number of emissions for, or the intensities of, said primary color video signals.”

However, as also acknowledged by the Examiner in page 2 and page 4, lines 1-2 of the Office Action, in Kang, to provide good white balance, “a pair of color 1 erase pulses 105 and 106 which have the same pulse width and inverted phase from each other are applied to be synchronized to the second sustain electrode 5 ... according to the number of the sustain pulses required in good white balance, and a pair of color 2 erase pulses 105a and 106a which have the same width and inverted phase from each other are applied to be synchronized to the second sustain electrode 5” (Kang, column 7, line 63 to column 8, line 22).

In contrast to Kang, in the present claimed invention “**output gray levels** ... by said primary color video signals **are adjusted in accordance with input gray levels** ... by said primary color video signals, thereby correcting white balance which varies with the number of emissions for, or the intensities of, said primary color video signals” (claim 19, emphasis added). In other words, Kang applying erase pulses based upon brightness of the primary color video signals differs from the present claimed invention’s adjusting output gray levels of primary color video signals according to input gray levels of the primary color video signals. More particularly, the characterization by the Examiner that the present claimed invention’s “**output gray levels ... are adjusted in accordance with input gray levels**” is same as Kang’s insertion of erase pulses would not appropriate, even though gray levels of primary color signals can affect brightness, which are detected in the present claimed invention, and Kang also measures brightness of the primary color signals.

Further, Kang teaches away from the present claimed invention in column 4, lines 17-20, disclosing: “However, in the case of using the lookup table, it has a problem that the color which can be displayed is reduced by the reduction of gray level and an additional cost is required in using the lookup table,” implying that gray level adjustment is not desirable. Therefore, Kang does not disclose or suggest the present claimed invention, and the present claimed invention is patentably distinguishing over Kang.

However, to place the application in condition for allowance, the patentably distinguishing feature of dependent claim 21 (and 36) of using “gray level correction coefficients” is incorporated in the independent claims 19, 34 and 47 concerning how the gray

levels are adjusted. There is no express rationale rejecting dependent claim 21. Further, concerning, dependent claim 22, the Examiner relies on Kang's use of a lookup table in column 4, lines 13-15, however, Kang does not disclose or suggest that the lookup table is used for the present claimed invention's "gray level correction coefficients."

Kang relates to a method for driving sustain lines in a plasma display panel where an erase pulse is inserted by the color in the period in which a sustain pulse is applied, when a white balance is adjusted considering the characteristics of the panel, so that pulses of a ratio required for good white balance can be applied. Applicants note that, in Kang, the erase pulse is not independently inserted into each color (each of the primary color video signals) in a preferable (different) timing.

On the other hand, in contrast to Kang, the present claimed invention (claims 19, 34, 47) as amended provides, "***computing gray level correction coefficients according to the input gray levels of said images represented by said primary color video signals, and applying corrections to the input gray levels according to the computed correction coefficients***" (e.g., amended independent claim 47, emphasis added), having a benefit in which output gray levels of images represented by primary color video signals can be independently adjusted via the correction coefficients for respective primary colors in accordance with input gray levels of the images represented by the primary color video signals, and therefore, white balance can be exactly corrected. Therefore, claim 47 as amended recites,

47. (CURRENTLY AMENDED) A method of correcting white balance ~~correction method for~~ a display apparatus which displays a color image by controlling the number of emissions or the intensity thereof in accordance with primary color video signals input thereto, the method comprising:

adjusting wherein ~~output gray levels of images represented by said primary color video signals are adjusted in accordance with~~ ***according to input gray levels of said images represented by said primary color video signals***, thereby correcting the white balance which varies with the number of emissions for, or the intensities of, said primary color video signals, wherein the adjusting comprises:

computing gray level correction coefficients according to the input gray levels of said images represented by said primary color video signals, and

applying corrections to the input gray levels according to the computed correction coefficients (emphasis added).

Further, Kang does not disclose or suggest the patentably distinguishing features of the present claimed invention as recited in independent claims 19 and 34 in which a white balance correction portion of a display apparatus has a computing unit computing gray level correction coefficients in accordance with the detected input gray levels, and a plurality of correction units applying corrections to the input gray levels by using the computed correction coefficients (claim 19), and that a white balance correction circuit used in a display apparatus has a computing unit computing gray level correction coefficients in accordance with the detected input gray levels, and a plurality of correcting units applying corrections to the input gray levels by using the computed correction coefficients (claim 34).


Support for the claim amendments can be found, for example, on page 29, line 16 to page 33, line 20, of the present Application. Withdrawal of the rejection of pending claims and allowance of rejected pending claims is respectfully requested.

CONCLUSION

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Respectfully submitted,
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Date: July 19, 2004

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